PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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| In re Application of: | | | |
| Ray C. MINOR | | Confirmation No. | 5342 |
| Application No. | 10/814,331 | Art Unit: | 3683 |
| Filed: | April 1, 2004 | Examiner: | Melody M. Burch |
| For: | POLE VIBRATION DAMPING ASSEMBLY AND METHOD | Attorney Docket: | *P69605US0* |

## DECLARATION UNDER 37 C.F.R. § 1.132
## OF J.A. PUCKETT

MAIL STOP RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

I, J.A. PUCKETT, Ph.D., P.E. declare and confirm that:

1. I hold the position of V.O. Smith Professor and Head, Department of Civil Engineering, College of Engineering, Department of Civil and Architectural Engineering, University of Wyoming. Attachment A accurately reflects my current and past positions, education, professional engineer registration, awards, publications and authorship, and other matters.

2. I have reviewed, studied and analyzed the following :

   (a) U.S. Patent Application of Ray C. Minor, Serial No. 10/814,331 for POLE VIBRATION DAMPING ASSEMBLY AND METHOD, hereinafter referred to as "the Minor Application";

(b) U.S. Patent No. 5,724,862 of Hannah *et al.* for DYNAMIC BALANCING METHOD AND APPARATUS, hereinafter referred to as "Hannah *et al.*";

(c) U.S. Patent No. 4,433,592 of Tatsumi *et al.* for BALANCER FOR USE IN CENTRIFUGAL ROTARY MACHINE, hereinafter referred to as "Tatsumi *et al.*";

(d) U.S. Patent No. 4,655,317 of Kólya *et al.* for SOUND DAMPING DEVICE, PREFERABLY FOR REDUCING THE NOISE OF BLOW-OFF VALVES, hereinafter referred to as "Kólya *et al.*";

(e) U.S. Patent Office Action of February 28, 2006 in the Application, hereinafter referred to as "the Office Action".

3. The phrases and words employed in the application and as used herein take on and conform to their ordinary and accustomed meanings as follows:

(a) Pole – A vertical fixedly positioned non-rotatable elongated structure supported and held in position in a cantilever manner at its lower end. Light poles and flag poles are typical examples.

(b) Vertical – In the direction of earth gravitational force, radial toward the center of the earth and generally orthogonal to the earth surface.

(c) Horizontal – A plane orthogonal to vertical.

(d) Wind Induced Pole Vibration – Multi-directional sequential displacement of the upper portion of the pole from its equilibrium position wherein the displacement frequency is comparable to the natural frequency of the pole typically due from wind gusts, shedding of vortices and/or galloping applied independently or in combination.

(e) Damping – The process of dissipation of energy in a vibrating system or structure such as the reduction of vibration resultant from a first external force applied to a body by the application of a second external force to the body countering the energy in the body resultant from the first external force.

(f) Out of Balance Force – A force due to the rotation of a mass that has its center of gravity eccentric to the axis of rotation. Typically, out of balanced forces are undesired in rotational systems. An out of balance automobile wheel and tire assembly, the rotating washing machine tub 18 in Tatsumi *et al.* and the rotating shaft 32 in Hannah *et al.* are examples of devices generating such force.

(g) Balancing – A repositioning of the center of gravity of an eccentric mass rotating about a rotational axis such that the eccentricity that creates the out of balance force is reduced.

(h) Inertial Force – A force or moment due to a force that is created due to the acceleration of mass.

(i) External Force – A force that is due to non-inertial effect and externally applied. Wind is an example.

(j) Viscous Damping – A dissipation of energy by a velocity dependent mechanism. An example is an automobile shock absorber.

(k) Coulomb (or Friction) Damping – A dissipation of energy by a friction dependent mechanism. An example is an automobile brake.

(l) Hysteretic Damping – A dissipation of energy by an inelastically deforming material mechanism. An example is a plastic hinge in a structural system.

(m) Impact Damping – A dissipation of energy due to the impact of two or more bodies. An example is a dropped ball that looses energy with each floor impact.

(n) Rolling Friction Damping – A dissipation of energy by one body rolling over another. This process is related to Coulomb damping.

(o) Rotation – An angular movement about an axis or shaft. Herein, associated with a spinning device such as a shaft transferring torque. Rotation due to flexural bending and associated shear of a pole is not considered rotation herein and hereafter is referred to as "non-rotatable".

4. Damping and balancing are two entirely different and non-analogous operations that employ different procedures for alleviating different problems.

5. The Minor Application discloses a pole damping device having a housing enclosing weights whose movement and impact with retaining surfaces in the housing dissipates wind induced energy in the pole by a combination of rolling friction and impact damping.

6. Hannah *et al.* in Figure 8A discloses a balancing apparatus for balancing horizontal rotating unbalanced shaft 32 by repositioning the center of gravity of the rotating shaft mass into closer alignment with the axis of rotation of the shaft to reduce imbalance. The balancing field of Hannah *et al.* is non-analogous to the Minor Application damping field and does not provide, and is incapable of, damping of either shaft 32 or a pole.

7. Tatsumi *et al.* is directed to a balancing device for a rotating tub 18, which operates to move the center of gravity of the tub and its contents closer to its axis of rotation. This balancing reduces the out of balance forces to reduce tub movement orthogonal to the axis of rotation. Tatsumi *et al.* is also non-analogous to the damping field of the Minor Application invention.

8. Shaft 32 of Hannah *et al.* is not a pole and does not conform with the ordinary and customary meaning of "pole" as stated in above paragraph 3(a) in that it does not extend vertically, is not fixedly supported in a cantilever manner at a lower end and does not perform the function of a pole such as supporting a light or flag.

9. Figure 8A of Hannah *et al.* discloses a plurality of 360° annular vertically extending circular guide ways, in each of which a plurality of unnumbered ball weights congregate in contact with each other to effect balancing in essentially the same manner as balls 62 illustrated in Figure 3 of Tatsumi *et al.*

10. Hannah *et al.* does not disclose an annular, horizontally-aligned, array of weight-receiving chambers solely occupied by a spherical ball damping weight and wherein the housing is shaped and dimensioned to encircle and facingly engage a pole. Hannah *et al.* also does not disclose horizontally aligned weight-receiving chambers separated by planar panels preventing movement of the spherical ball damping weights from one weight-receiving chamber to an adjacent weight-receiving chamber.

11. The Hannah *et al.* apparatus is not a damping device but is a balancing device that limits the out of balance forces being imposed on rotating shaft 32. It does not dissipate energy per se, an essential requirement of a damping function, and does not effect damping.

12. The movement of the ball weights of Hannah *et al.* is restricted to circular movement in a vertical plane along their respective annular circular guide ways, illustrated by dashed lines. Sections 90 and 91 in Figure 8A of Hannah *et al.* are not horizontal and are not horizontally aligned. An essential and necessary feature of the Hannah *et al.* Figure 8A

device that is required for it to perform its balancing function is the positioning of balls in vertically extending 360° circular guide ways, so that the balls are able to freely move along the 360° extent of the guide ways to permit the balls to congregate in contact with each other in essentially the same manner as balls 62 as illustrated in Figure 3 of Tatsumi *et al.,* to effect balancing of the Hannah *et al.* horizontal unbalanced shaft 32.

13. Preventing the 360° free movement of the Hannah *et al.* balls such as by positioning of fixed panels, such as panels 64 of Tatsumi *et al.,* in the guide ways would render Hannah *et al.* inoperable for effecting its intended function and purpose of balancing shaft 32 and would not render Hannah *et al.* capable of damping pole vibrations.

14. The devices of Hannah *et al.* and Tatsumi *et al.* both operate to balance rotating structures and are not applicable to, or capable of, damping wind induced first harmonic mode vibrations of vertical poles. A person of skill in the art of pole vibration damping would not seek, and would not find, solutions for damping wind induced first harmonic mode pole vibrations in the non-analogous and unrelated rotation balancing field of the devices of both Hannah *et al.* and Tatsumi *et al.*

15. The Tatsumi *et al.* device is not a pole vibration damping device and does not provide any teaching of modification of Hannah *et al.* that would enable the balancing device of Hannah *et al.* to effect damping of wind induced first harmonic mode vibrations of a pole.

16. Horizontal rotatable shaft 32 of Hannah *et al.* is not a non-rotatable pole, and does not extend vertically, is not fixedly supported in a cantilevered manner at a lower end, does not perform the function of a pole such as supporting a light or flag, and is not usable for damping wind induced first harmonic mode pole vibrations.

17. The Hannah *et al.* device does not include housing component half portions or a pole and the structure labeled "Inner partial sleeve surface" in Figure 8A on page 6 of the Office Action is not "dimensioned and shaped to fit in a mating manner over, and in facing contact with, an upper end portion of a pole having an axis approximately coextensive with the center of curvature of the pole".

18. The Hannah *et al.* structure labeled "Outer partial cylinder sleeve surface" in Figure 8A on page 6 of the Office Action consequently is not "positioned outwardly of the inner partial cylinder sleeve surface" in that it is positioned ***above*** the structure labeled "Inner partial cylinder sleeve surface".

19. The Hannah *et al.* structure in Figure 8A on page 6 of the Office Action does not include "a floor panel shown below the balls" or "planar partitioning panels" perpendicular to a floor panel.

20. The Hannah *et al.* structure illustrated in Figure 8A on page 6 of the Office Action does not disclose "a plurality of partitioning panels shown radially between the balls extending vertically upwardly from the floor panel" in that there are no partitioning panels separating the balls and there is no floor panel.

21. The Hannah *et al.* structure illustrated in Figure 8A on page 6 of the Office Action does not include "damping weight-receiving chambers between adjacent partitioning panels and a moveable damping weight or balls in each of the damping weight-receiving chambers" in that there are no partitioning panels or damping weight-receiving chambers in the Figure 8A structure.

22. The Hannah *et al.* structure illustrated in Figure 8A on page 6 of the Office Action does not include "a first planar plate extending between a first end portion of the inner partial cylinder sleeve and a connector lug" in that there is no "inner partial cylinder sleeve" structure as noted in above paragraph 17.

23. The Hannah *et al.* structure in Figure 8A on page 6 of the Office Action does not include "a second planar panel extending between a second end portion of the inner partial cylinder sleeve and a connector lug" in that there is no "inner partial cylinder sleeve" as noted in above paragraph 17 and there is no "connector lug".

24. Tatsumi *et al.* is solely limited to an apparatus for balancing a rotating laundry tub 18 rotating about a vertical axis and which is directed to a field of endeavor that is non-analogous to, and totally remote from, the field of damping wind induced first harmonic mode pole vibrations.

25. Tatsumi *et al.* employs a plurality of annular single ball receiving and storing compartments 65 in a casing 56 having a floor portion 56D and separated by L-shaped partitioning walls 64, with each compartment having an upper right hand opening 66. Each compartment supports a single ball on floor 56D only when the apparatus is

deactivated (Figure 6). Each ball 62 rests on floor portion 56D and no balancing of the tub occurs until the tub reaches sufficient operational rotational speed to cause the balls to move up inclined wall portion 67 to the position of the upper dashed line ball in Figure 6, at which time partitioning walls 64 cease to separate the balls which consequently are free to pass through openings 66 in each wall 64 and move along the entire 360° periphery of vertical portion 69 to congregate in contact with each other to effect balancing of the tub.

26. The partitioning panels 64 in Figure 7 of Tatsumi *et al.* operate to separate balls 62 only when the device is not in use or during initial start-up of rotation of tub 18. The Tatsumi *et al.* device does not operate to balance tub 18 and its load until balls 62 are clear of panels 64 and free to move in the circular 360° chamber in which the upper dashed line ball is positioned as shown in Figure 6. The balls then congregate opposite the unbalanced load 34 to effect balance of tub 18 and its load. Tatsumi *et al.* consequently teaches away from modification of Hannah *et al.* to incorporate panels 64.

27. Incorporation of panels 64 of Tatsumi *et al.* in the ball guide ways of Hannah *et al.* would prevent congregation of the contacting balls, an essential aspect of Hannah *et al.*, so as to render Hannah *et al.* inoperable for its intended purpose of balancing horizontal unbalanced shaft 32.

28. The provision of Tatsumi *et al's* planar panels 64 in the Hannah *et al.* device would not enable different damping capacities depending on the rotational speed due to the fact that Hannah *et al.* does not provide any damping function capacity, either in its original form or the modified form of the Office Action including panels 64.

29. Kólya *et al.* discloses a device for suppressing the noise generated by a gas stream emitted by a blow-off valve in which a partial sphere 14 formed of polyurethane coated with a polyurethane prepolymer solution has a large cavity in which fitting 2 is positioned. Fitting 2 is connected to a gas blow-off valve for receiving and discharging high pressure gas blow-off which it directs through the partial sphere to diminish noise resultant from the gas discharge by absorption in partial sphere 14. Solutions for effecting reduction of noise generated by high pressure gas discharge such as that of Kólya *et al.* are not pertinent, or applicable to, or capable of, or useful for, balancing rotating bodies such as shaft 32 of Hannah *et al.* and tub 18 of Tatsumi *et al.*, or for damping wind induced vibrations of poles, due to the fact that noise is air pressure variation in wave form and is reduced by absorption in sound insulation such as partial sphere 14 of Kólya *et al.*, whereas damping of wind induced pole vibration can only be effected by the application of counter force to the wind force.

30. Kólya *et al.* does not disclose or suggest any capability of balancing rotating devices such as Hannah *et al.* and Tatsumi *et al.* and is limited to sound damping procedures by absorption that are not relevant to, or usable for, pole vibration damping. There is nothing in Kólya *et al.* that would lead a person of skill in the pole vibration damping field of activity or the rotation balancing field of Hannah *et al.* and Tatsumi *et al.* to seek solutions in Kólya *et al.*, which is not reasonably pertinent to balancing of rotary devices such as Hannah *et al.* and Tatsumi *et al.* or wind induced first harmonic mode pole vibrations.

31. The terms "vertical" and "horizontal" are not relative terms but are unchangeable fixed relationships to the earth and to each other as set forth in preceding paragraphs 3(b) and 3(c).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001.

Date: 6/21/06 By: _____

J.A. Puckett, Ph.D., P.E.

**ATTACHMENT A**
**Academic Resume**

May 2006

**Name**: Jay A. Puckett, Professor of Civil Engineering

**Address**: Department of Civil and Architectural Engineering
University of Wyoming
Box 3295, University Station
Laramie, WY 82071
Tel: (307) 766-2223

**Education**:

| | |
|---|---|
| Ph.D. | Civil Engineering, Colorado State University, December 1983 (3.95/4.00) |
| M.S. | Civil Engineering, Colorado State University, December 1980 (4.00/4.00) |
| B.S. | Civil Engineering, University of Missouri, May, 1978 (3.90/4.00) |

**Professional Registration**:

Structural Engineering, Wyoming Reg. No. 5906

**Experience**:

V.O. Smith Professorship and Department Head, Civil and Architectural Engineering, August 2005 to present.

Professor and Department Head, Civil and Architectural Engineering, August 2002 to August 2005.

Professor of Civil Engineering, University of Wyoming, May 1992 to August 2002.

Professor of Civil Engineering, Virginia Polytechnic and State University, Sabbatical Leave, 1992-93.

Associate Professor of Civil Engineering, University of Wyoming, July 1987 to April 1992.

Assistant Professor of Civil Engineering, University of Wyoming, August 1983 to July 1987.

Instructor of Civil Engineering, Colorado State University, August 1979 to August 1983.

**Consulting**:

Federal Highway Administration, USDOT, Office of International Programs (2002 – 2003)

American Association of State Highway and Transportation Officials (AASHTO), Development of the next substructure design software, *Opis* (2001-present)

American Association of State Highway and Transportation Officials (AASHTO), Development of the next generation of bridge load rating and design software, *VIRTIS& OPIS* (1994-present)

President, BridgeTech, Inc., Laramie, WY, Software development (1988 - present)

Modjeski and Masters, Inc., NCHRP 12-42, Miscellaneous Maintenance of the AASHTO LRFD Bridge Design Specification (1993 – present)

BridgeTech, Inc. AASHTO Bridge Design System -- A Critical Review, (1995-1996)

Gage and Moxley, Cheyenne, WY (1991-1992), Expert Testimony

ARK Industries, Laramie, WY, (1992) Structural Engineering

K-Span of Colorado, Colorado Springs CO, (1992 - 1995), Structural Engineering Software

Wyoming Highway Department, Cheyenne, WY (1990 - present): Software Development

Imbsen and Associates, Sacramento, CA (1989 - 1992): Software Development

MIC, Inc. Washington, DC (1989): Software Development, Laboratory Testing, Structural Modeling.

Wyoming Highway Department, Cheyenne, WY (1988 - 1989): Computing and Information Strategic Planning Study.

NCHRP 12-33 Task Force to Develop an AASHTO Specification for the Evaluation and Rating of Bridges, Prime Contractor: Modjeski and Masters (1989 - 1993)

Knudson, Ltd., Broomfield, CO (1984 - 1986): Metal Building Design Software Development

Engineering Computer Corporation, Sacramento, CA (1985 - 1987): Bridge Engineering Software Development

**Professional Organizations**:

American Society of Civil Engineers
American Society for Engineering Education
American Concrete Institute
Structural Engineering Institute/ASCE (founding member)

**Honor Societies and Awards**:

**Awards**

Appointed the V.O. Smith Chair for Infrastructure, Department of Civil and Architectural Engineering, University of Wyoming (September 2005 to present)

Selected the University of Missouri at Columbia Department of Civil Engineering, ***Academy of Distinguished Alumni***, October 2000.

Selected for the ***Outstanding Research and Graduate Teaching Award***, College of Engineering, University of Wyoming, 1998.

Selected for the American Society for Engineering Education ***DOW Outstanding Young Educator Award***, a national award recognizing excellence in teaching and research, 1988.

Selected ***Most Outstanding Professor*** by the Chi Epsilon Chapter at Colorado State University, 1981.

**Societies**

Sigma Xi

Phi Kappa Phi
Chi Epsilon
Tau Beta Pi

**Theses Directed**:

1. M.S. Structural Engineering, John Peiffer, in progress
2. M.S., Structural Engineering, Charles Brisko, 2002.
3. M.S., Structural Engineering, Brent Deschamp, (with T. Hamilton), 2001
4. M.S., Structural Engineering, Patrick McManus, (with T. Hamilton), 2000
5. M.S., Structural Engineering, Mathew McBride, 1999
6. M.S., Structural Engineering, Peili Wang, (with T. Hamilton), 1999
7. M.S., Structural Engineering, Brian Gray, (with T. Hamilton), 1999
8. M.S., Structural Engineering, Scott Riggs, (with T. Hamilton), 1998.
9. M.S., Structural Engineering, Jin Wang, 1998
10. Ph.D. Brian Bramel, Structural Engineering (with C. Dolan)
11. M.S. Structural Engineering, B. Goodrich, 1999
12. M.S., Structural Engineering, C. Fogstaad, (with C. Dolan), 1996.
13. M.S., Structural Engineering, T. Galloway (with C. Dolan), 1996
14. M.S., Structural Engineering, R. Thomas, 1996
15. M.S., Structural Engineering, D. Wellock, 1994
16. M.S., Structural Engineering, R. Merchant (with C. Dolan), 1994
17. M.S., Structural Engineering, J. Kostage (with C. Dolan), 1994
18. M.S., Structural Engineering, R. Croft (with C. Dolan), 1994
19. M.S., Structural and Software Engineering, C. Stauffer, 1993
20. M.S., Structural Engineering, T.R. Finch, 1992
21. M.S., Structural Engineering, M. Gralund, 1992
22. M.S., Structural and Software Engineering, C. Clancy, 1992
23. M.S., Structural Engineering, B. Raza, 1990
24. M.S., Structural Engineering, S. R. Lieber, 1989
25. M.S., Structural Engineering, R. Naiknavare, 1989
26. Ph.D., Structural Engineering, Chin Chen (CSU), 1989
27. M.S., Structural Engineering, R. B. D'Spain, 1988
28. M.S., Structural Engineering, P. W. Guenther, 1988
29. M.S., Structural Mechanics, D. L. Wiseman, 1987
30. M.S., Structural Engineering, C. A. Pohl, 1986
31. M.S., Structural Engineering, J. D. Lohrer, 1986
32. M.S., Structural Engineering, F. A. Atkinson, 1986
33. M.S., Software, L. R. Reasch, 1986
34. M.S., Structural Engineering, J. L. Groom, (with T. Edgar), 1985
35. M.S., Structural Mechanics, G. J. Lang, 1985

All of these students were funded through research projects.

**Journal Editor:**

Editor, *ASCE Bridge Engineering Journal* (1995 - 1998) (Member of the Initial Editorial Board that started this journal)

**Scientific and Professional Committees**:

NCHRP 12-56, "Joint Committee to Review Shear Specification Provisions"
NCHRP 12-56, "Application of the LRFD Bridge Design Specifications to High-Strength Structural Concrete: Shear Provisions (typical NCHRP panel for time commitment -- $650,000)
ASCE Committee on Timber Bridges (1997-present)

ASCE Committee on Safety of Bridges (1988 - 1996)
ASCE Committee on Education, Structural Analysis Control Group Member (1992-1994)
ASCE Committee on Methods of Analysis (1982 - 1993)
ASCE Committee on Educational Needs in Bridge Engineering
(1986 - 1989) (Chairperson)
ASCE Referee for the *Journal of Computing in Civil Engineering*
Referee for NSF
Referee for Strategies Highway Research Program (SHRP)

Note: Referee activities are numerous and are not itemized.

**Professional Service**:

**General**:

Member, Dean's College of Engineering Communications Committee (2005-present)
College Promotion and Tenure Committee (Spring 2002)
College of Engineering Curricula Committee (2001 – present)
Civil and Architectural Engineering Curriculum Committee (**chairperson**), 2000 – present.
Engineering Dean's Publications Editorial Advisory Committee (**chairperson**), 2000 – present.
Graduate and Professional Student Recruitment, UW **President's** Enrollment Management Study (1999 – 2000)
**President's** Committee on Budget Review (1997 -1998)
University Budget Committee, **Chair** (1994- present)
Numerous Short Courses (see itemized list below) (1993- present)
Departmental Curriculum Committee (1993- present)
Review Committee NSF Young Investigator Program (1992)
Task Group Member NSF Research Needs in Bridge Engineering (1992)
Chairperson, Dean's Task Force for Planning (1989)
Member-at-Large, Faculty Senate **Executive Council** (1989-1991)
Member of Vice Presidential Search Committee
Member of Vice Presidents Task Force to Study the CSU-UW Microwave Link Project and UW Entry into Video Instruction
UW Centennial Committee
Member of a departmental committee to prepare for the ABET review (1985)
Faculty Senator
Member of Civil Engineering Graduate Committee (**Chairperson**)
Member of Dean's Five-Year Planning Committee
Faculty Advisor to the Student Chapter of ASCE at Colorado State University
Reviewer for the National Science Foundation
Reviewer for PWS Publishing, Inc.

**Related to Computing**:

Member of Task Force to Develop a Campus-wide Workstation Purchase Plan
Subcommittee for College Curriculum Review regarding Computing (**Chairperson**).
College representative on the Computer Center Advisory Committee (**Chairperson**).
Member of Civil Engineering Computer Committee.
Member of a Vice Presidential Task Force to Study Acquisition of a DEC Mainframe Computer.
Member of a Dean's Task Force to study computing needs in the College of Engineering.
Ex-officio Member of the College of Engineering Computer Committee.
Member of a Vice Presidential Task Force to Study Campus-Wide Microcomputing.

**Faculty Affiliation**:

Faculty affiliate in the Department of Civil Engineering, Colorado State University, 1986 - 2004.

**Books:**

**Puckett, J.A.** and Coletti, D. *National Steel Bridge Alliance Steel Bridge Design Handbook*, Chapter 10: Structural Analysis, peer review is complete.

Barker, R.M. and **Puckett, J.A.**, *Design of Highway Bridges – Based on AASHTO LRFD Bridge Design Specification*, John Wiley and Sons, New York, 2003, Second Edition (Page galleys in review)

Barker, R.M. and **Puckett, J.A.**, *Design of Highway Bridges – Based on AASHTO LRFD Bridge Design Specification*, John Wiley and Sons, New York, 1997, 1169 pgs.

**Patents:**

Patent 6,857,615B2, "Mechanical Damper for Structures," **Puckett, J.A.**, Hamilton, H.R., and Patrick McManus, February 2005.

**Refereed Publications**:

1. Peavy, M.D., Talley, A, and **Puckett, J.A.**, "New LRFD Design and Analysis Software for Reinforced Concrete Slab Bridges," National Concrete Bridge Conference, Reno, NV, May 2006.

2. Patrick, M.D., Huo, X.S., Puckett, J.A., Jablin, M., and Mertz, D. "Sensitivity of Live Load Distribution Factors to Vehicle Spacing," ASCE Journal of Bridge Engineering, Technical Notes, Vol. 11, No. 1, January/ February 2006, pp.131-134.

3. **Puckett, J.A.** and Hearn, G., "Summary of FHWA International Scanning Tour For Bridge Preservation and Maintenance," International Bridge Engineering Conference, TRB: 6IBECS-108, July 2005.

4. Goodrich, B.L., **Puckett, J.A.**, Jablin, M.C., "Validation of Specification Modification via NCHRP 12-50 Process," International Bridge Engineering Conference, TRB: 6IBECS-108, July 2005,.

5. **Puckett, J.A.**, Huo, X.S., Patrick, M.D., Jablin, M.C., Mertz, D., Peavy, M.D, Simplified Equations for Live-Load Distribution in Highway Bridges, International Bridge Engineering Conference, TRB: 6IBECS-069, July 2005.

6. P.S. McManus, **Puckett, J.A.**, and Hamilton, H.R., "Damping in Cantilevered Traffic Signal Structures under Forced Vibration," ASCE Journal of Structural Engineering, ASCE, Vol 129, n 3., March 2003, pp 373-382.

7. Goodrich, B.L. and **Puckett, J.A.**, "Comparison of LFR and LRFR Bridges," National Concrete Bridge Conference, National Concrete Bridge Association, Nashville, TN, Oct. 2002.

8. **Puckett, J.A.**, "Comparative Study of AASHTO Load and Resistance Factor Design Distribution Factors for Slab-Girder Bridges," Transportation Research Record, No. 1770, pgs 34-37, 2001.

9. **Puckett, J.A.** and Mlynarski, M., "Bridge Software Validation Guidelines", Transportation Research Board, No. 1696, Vol. 2, 2001.

10. Hamilton, H.R., Riggs, G.S. and **Puckett, J.A.**, "Increased Damping in Cantilevered Traffic Signal Structures," Journal of Structural Engineering, ASCE, Vol. 126, No. 4, New York, NY. (020106-ST).

11. Thompson, PD, Duray, JA; Campbell, JJ; Puckett, JA; Wright, B., "VIRTIS: AASHTO's New Bridge Load Rating System," Transportation Research Circular 448, Eighth International Bridge Management Conference, Denver, Colorado, June 2000.

12. **Puckett, J.A.**, and Goodrich, B.G., "Simplified Approach for Live Load for Permit Vehicles with Non-Standard Axle Gages," Bridge Software Validation Guidelines," Journal of the Transportation Research Board, No. 1696, Vol. 2, pgs. 143-151, April 2000.

13. **Puckett, J.A.**, Mark Mlynarski, Jablin, Clancy, C, "Bridge Software Validation Guidelines," Fifth International Bridge Engineering Conference, Tampa, FL, April 2000. (TRB Review)

14. Goodrich, B.L. and **Puckett, J.A.**, "Rating Factor Computations for Shear and Moment Interaction Using AASHTO-LRFD, ASCE Bridge Journal, Practitioner's Forum, Oct. 1998.

15. Hamilton III, H. R., Fowler, T. J., **Puckett, J. A.**, "AE Evaluation of Fatigue Damage in Traffic Signal Poles", *Acoustic Emission: Standards and Technology Update, ASTM STP 1353*, S. J. Vahaviolos, Ed., American Society for Testing and Materials, 1998.

16. Thompson, Paul D., Duray, J.A., **Puckett, J.A.**, and Jeffrey J. Campbell, "The Application of Object Technology in AASHTO's New Bridge Load Rating and Design Systems," The First International Conference on New Information Technologies for Decision Making in Civil Engineering, Montreal, 11-13, 1998 (TRB review)

17. Bramel, B.K., **Puckett, J.A.**, Ksaibati, Khaled, and Dolan, C.W., "Asphalt Plug Joint Usage and Perceptions in the United States", Transportation Research Board 1594, National Academy of Sciences, Washington, DC, 1998.

18. Bramel, B.K., Dolan, C.W., Ksaibati, K., and **Puckett, J.A.**, "Asphalt Plug Joints – Design Guidelines and Specification Development," 5th International Conference on Short and Medium Span Bridges, July 1998. (TRB review)

19. Dolan, C.W., **Puckett, J.A.**, and Merchant, R.W., "Temperature Effects on Elastomeric Sealants for Bridge Joints," International Conference on Joints and Bearings, San Francisco, CA, October, 1996. (ACI Review)

20. Dolan, C.W, **Puckett, J.A.**, and Kostage, J, "Experimental Evaluation of Asphalt Plug Joints," International Conference on Joints and Bearings, San Francisco, CA, October 1996. (ACI Review)

21. Merchant, R., Kostage, J., Dolan, C.W., and **Puckett, J.A.**, "Performance of Elastomeric Sealants", International Conference on Short- and Medium-Span Bridges, Halifax, Nova Scotia, Canada, Aug., 1994 (TRB Review).

22. Croft, R., **Puckett, J.A.**, Dolan, C.W., "Temperature Effects in Skewed Bridges," International Conference on Short- and Medium-Span Bridges, Halifax, Nova Scotia, Canada, Aug., 1994 (TRB Review).

23. **Puckett, J.A.**, and Gralund, M.S., "A System for Bridge Management in a Rural Environment," *Journal on Computing in Civil Engineering*, ASCE, April, 1996.

24. Swift, D.P., **Puckett, J.A.**, and Edgar, T.V., "A Finite Element Analysis of Cold Embedments in Fresh Concrete," *Journal of Cold Regions Engineering*, ASCE, Vol. 6, No. 2, June 1992.

25. Smith, S.S., Allen, M.B., **Puckett, J.A.**, and Edgar, T.V., " The Finite-Layer Method for Groundwater Flow Models," *Water Resources Research*, Vol. 28, No. 6, June 1992.

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43. **Puckett, J. A.**, Reasch, L. R., and Edgar, T. V., "Interactive Shell for Batch Programs," *Microcomputers in Civil Engineering - An International Journal*, Vol. 1, No. 2, Oct. 1986.

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48. **Puckett, J. A.**, "Introduction to Synthesis in the First Mechanics Course," *Engineering Education,* American Society for Engineering Education, Feb. 1984.

49. Vanderbilt, M.D., Goodman, J.R., and Puckett, J.A., "Testing of Large Timber Poles", lost reference??.

**Refereed Publications in Review or being finalized**:

None

**Non-Refereed Publications and Presentations (Conferences, Workshops, Specification Committees, etc)**:

1. Puckett, J.A., Jablin, M.C., Peavy, M.D. and Goodrich, B.G., "AASHTO's Highly Intellgent Specifications – SpecML," AASHTO Subcommittee on Bridges and Structures, T-19, Snowbird, UT, May 2006.

2. Puckett, J.A., Jablin, M.C., Peavy, M.D. and Goodrich, B.G., "AASHTO's Highly Intellgent Specifications – Executive Briefing," AASHTO Subcommittee on Bridges and Structures, Executive Meeting, Snowbird, UT, May 2006.

3. Puckett, J.A. and Barker, M.G.," Changes to the 2001 AASHTO Design Specification for Pole and Illuminaires (update on NCHRP 20-07 (209)," AASHTO Subcommittee on Bridges and Structures, T-12, Snowbird, UT, May 2006.

4. **Puckett, J.A.**, Goodrich, B.G. and Jablin, M.C., "Enhancements of WYDOT's BRASS Pier Program for the AASHTO Bridge Design Specification," Opis, Virtis, BRASS Users' Group Meeting, Burlington, VT, July 2004.

5. **Puckett, J.A.** and Goodrich, B.G., "Merger of BRASS Standard Specification Program with LRFD Program," Opis, Virtis, BRASS Users' Group Meeting, Burlington, VT, July 2004.

6. **Puckett, J.A.**, AASHTO Opis Short Course, AASHTO Virtis/Opis/BRASS Users Group Meeting, Orange Beach, AL, August 2003.

7. Goodrich, B.L., **Puckett, J.A.**, and Jablin, M.C, *LFD and LRFR Methods for Bridges*, AASHTO Virtis/Opis/BRASS Users Group Meeting, Orange Beach, AL, August 2003.

8. Puckett, J.A. and Peavy, M.D., *Update on Opis' Finite Element Engine*, AASHTO Virtis/Opis/BRASS Users Group Meeting, Orange Beach, AL, August 2003.

9. Goodrich, B.L., **Puckett, J.A.**, and Jablin, M.C, Comparisons of LFD and LRFR methods for Bridges, AASHTO Subcommittee on Bridges and Structures, T-18, Albuquerque, NM, June 2003.

10. Goodrich, B.L., **Puckett, J.A.**, and Jablin, M.C, *Comparisons of LFD and LRFR Methods for Bridges*, AASHTO Subcommittee on Bridges and Structures, T-18, Albuquerque, NM, June 2003.

11. Goodrich, B.L., **Puckett, J.A.**, and Jablin, M.C, *Implementation of AASHTO LRFD 6.10 Revisions – Commentary Regarding Adoption*, AASHTO Subcommittee on Bridges and Structures, Main Session, Albuquerque, NM, June 2003.

12. Goodrich, B.L., **Puckett, J.A.**, and Jablin, M.C, *Implementation of AASHTO LRFD 6.10 Revisions*, AASHTO Subcommittee on Bridges and Structures, T-14, Albuquerque, NM, June 2003.

13. **Puckett, J.A.** and Mlynarski, Bridge Software Validation Update, NCHRP 12-50, AASHTO Subcommittee on Bridges and Structures, T-19, Albuquerque, NM, June 2003.

14. Goodrich, B.L. and **Puckett, J.A.**, "Comparison of LFR and LRFR Bridges," Invited presentation to the University of Illinois Bridge Engineering Workshop, April 2003.

15. "Fatigue Damage Characteristics of Cantilever Traffic Signal Structures," Transportation Research Board Annual Meeting, January 2003, Washington, DC.

16. "Fatigue Testing of Traffic Signal Structures," 2002 Structures Congress, Denver CO, April 3-6, 2002.

17. Puckett, J.A., Hamilton, H.R., Gray, B., Wang, P., and Deschamp, B., "Fatigue Testing of Traffic Signal Structures", AASHTO T-18 Technical Subcommittee, Special Interim Meeting, Las Vegas, NV, November 2002.

18. Mlynarski, M. and **Puckett, J.A.**, "Research Pays Off", Transportation Research News, No. 216, pgs. 24-25, Sept-Oct. 2001.

19. **Puckett, J.A.**, and Tadros, M.K., Design for Shear in Prestressed Concrete Bridge Members, Open Forum, PCI Journal, May-June 2001, Vol. 46, No. 3, P90-93.

20. **Puckett, J.A.**, Duray, J.A., Campbell, J.J., and Thompson, P.D.," Update of AASHTO's Virtis/Opis", Western Bridge Engineers' Seminar, Sacramento, CA, September 2001.

21. **Puckett, J.A.** and Mlynarski, M., "NCHRP 12-50 Software Validation Guidelines", Western Bridge Engineers' Seminar, Sacramento, CA, September 2001.

22. **Puckett, J.A.**, "Testing and Update on BRASS-Culvert", BRASS/Opis/Virtis National Users' Group Meeting, Albuquerque, NM, August 2001.

23. Goodrich, B. G. and **Puckett, J.A.**, "Update on BRASS Girder-LRFD", BRASS/Opis/Virtis National Users' Group Meeting, Albuquerque, NM, August 2001.

24. Glandt, D.A., and **Puckett, J.A.**, "Update on BRASS Girder-STD", BRASS/Opis/Virtis National Users' Group Meeting, Albuquerque, NM, August 2001.

25. **Puckett, J.A.**, "Update and Implementation of NCHRP 12-50", BRASS/Opis/Virtis National Users' Group Meeting, Albuquerque, NM, August 2001.

26. **Puckett, J.A.**, Mlynarski, M., Jablin, M., Clancy, C.," Implementation of NCHRP 12-50 and Its Extension for LRFR", Annual Meeting of the Subcommittee on Bridges and Structures, T-19, Seattle, WA, May 2001.

27. L.R. Reasch, **Puckett, J.A.**, Mark Mlynarski, M. Jablin, Clancy, C.," Update and Implementation of NCHRP 12-50", Main Session Annual Meeting of the Subcommittee on Bridges and Structures, Seattle, WA, May 2001.

28. **Puckett, J.A.**, Duray, J.A., Campbell, J.J., and Thompson, P.D.," Update of AASHTO's Virtis/Opis", Annual Meeting of the Subcommittee on Bridges and Structures, T-19, Seattle, WA, May 2001.

29. **Puckett, J.A.**, Duray, J.A., Campbell, J.J., and Thompson, P.D.," Update of AASHTO's Virtis/Opis", Main Session Annual Meeting of the Subcommittee on Bridges and Structures, Seattle, WA, May 2001.

30. **Puckett, J.A.**, "Load Testing Requirement Outlined in the AASHTO LRFR Specification", Bridge Load Testing and Rating Workshop, Kansas City, Mo. March 2001.

31. **Puckett, J.A.**, "New Technologies in Civil Engineering", Wyoming Engineering Society, Casper, WY, February 2001.

32. **Puckett, J.A.**, "Comparative Study of AASHTO LRFD Distribution Factors", Transportation Research Board Annual Meeting, January 2001, Washington, DC.

33. **Puckett, J.A.**, Thompson, P.D., Duray, J.A., Campbell, J.J., AASHTO's Bridge Load
34. Rating and LRFD Bridge Design Software Overview and Steel Design Review Example", Transportation Research Board Annual Meeting, January 2001, Washington, DC.

35. **Puckett, J.A.**, Thompson, P.D., Duray, J.A., Campbell, J.J., AASHTO's Bridge Load
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37. **Puckett, J.A.**, "Introduction to AASHTOWare Opis/Virtis – PCA Professors' Seminar on Bridge Engineering", Portland Cement Association, Skokie, IL, August 2000.

38. **Puckett, J.A.**, Thompson, P.D., Duray, J.A., Campbell, J.J., "Virtis/Opis Report Writer", AASHTO Virtis/Opis Users' Group Annual Meeting, Minneapolis, MN, July 2000.

39. Jablin, M., Goodrich, B.G. and **Puckett, J.A.**, "BRASS-Pier (LFD and LRFD) Maintenance and Development Efforts", BRASS Users' Group Annual Meeting, Minneapolis, MN, July 2000.

40. Jablin, M. and **Puckett, J.A.**, "Prestressed Girder Analysis and Rating Verifications and Ongoing NCHRP Testing Efforts", AASHTO Virtis/Opis Users' Group Annual Meeting, Minneapolis, MN, July 2000.

41. **Puckett, J.A.** and Goodrich, B.G., "Recent Developments in LRFR and BRASS", BRASS Users' Group Annual Meeting, Minneapolis, MN, July 2000.

42. Goodrich, B.G. and **Puckett, J.A.**, "Recent Modifications and Enhancements for BRASS-Girder (LRFD)", BRASS Users' Group Annual Meeting, Minneapolis, MN, July 2000.

43. Glandt, D.A. and **Puckett, J.A.**, "Recent Modifications and Enhancements for BRASS-Girder", BRASS Users' Group Annual Meeting, Minneapolis, MN, July 2000.

44. Watters, M.J. and **Puckett, J.A.**, "Update and Demonstration of BRASS-Culvert and BRASS-Culvert (LRFD)", BRASS Users' Group Annual Meeting, Minneapolis, MN, July 2000.

45. **Puckett. J.A.**, "NCHRP 12-50 Bridge Software Validation Guidelines and Examples," AASHTO Subcommittee on Bridges, Annual Meeting, Charleston, SC, June 2000.

46. **Puckett, J.A.** and H.R. Hamilton, "Research Update on Traffic Signal Poles," AASHTO Subcommittee on Bridges, Annual Meeting, Charleston, SC, June 2000.

47. Goodrich, Brian and **Puckett, J.A.**, "Simplified Approach for Live Load for Permit Vehicles with Non-Standard Axle Gages," Bridge Software Validation Guidelines," International Bridge Engineering Conference, Tampa, FL, April 2000. (TRB Refereed Review and presentation)

48. **Puckett, J.A.**, Mark Mlynarksi, Jablin, Clancy, C, "Bridge Software Validation Guidelines," International Bridge Engineering Conference, Tampa, FL, April 2000. (TRB Refereed Review and presentation)

49. **Puckett, J.A.**, "Development of a Process for Software Testing," Bridge Design Workshop No. 6, Kansas State University, Manhattan, KS, October 1999.

50. H.R, Hamilton and **Puckett, J.A.**, "Traffic Signal Structure Research" *Proceedings*, 1999 Structures Congress, New Orleans, April 19-21, 1999.

51. Duray, J., **Puckett, J.A.**, and Campbell, J.J., "An Update on AASHTO's New Bridge Load Rating and Design Systems Virtis/Opis," Western Bridge Engineers Seminar, Seattle, WA, Oct. 1999.

52. **Puckett, J.A.**, Mlynarski, M., Jablin, M., C. Clancy, and Wilson, K., "NCHRP 12-50 Bridge Software Validation Guidelines and Examples," Western Bridge Engineers Seminar, Seattle, WA, Oct. 1999.

53. Jablin, M. and **Puckett, J.A.**, "Update on Developments within BRASS-Pier (LRFD)," BRASS and AASHTO Opis/Virtis Users Group Meeting, Annual Meeting, Nashville, TN, July 1999.

54. **Puckett, J.A.**, "Overview of Significant Changes in the AASHTO 16$^{th}$ Edition and AASHTO LRFD Specifications – Implications on Practice," BRASS and AASHTO Opis/Virtis Users Group Meeting, Annual Meeting, Nashville, TN, July 1999.

55. Glandt, D.A. and **Puckett, J.A.**, "Conversion of Delaware BRASS Data for Automated Routing and Rating with GIS," BRASS and AASHTO Opis/Virtis Users Group Meeting, Annual Meeting, Nashville, TN, July 1999.

56. Goodrich, B.L., Cole, A.P., and **Puckett, J.A.**,"BRASS-Culvert Administrative Update and Demonstration," BRASS and AASHTO Opis/Virtis Users Group Meeting, Annual Meeting, Nashville, TN, July 1999.

57. **Puckett, J.A.** and Jablin, Mark, "Overview of NCHRP 12-50, Software Validation," BRASS and AASHTO Opis/Virtis Users Group Meeting, Annual Meeting, Nashville, TN, July 1999.

58. **Puckett, J.A.** and Hamilton, T.R., "Traffic Signal Pole – Work in Progress," AASHTO Subcommittee on Bridges, Annual Meeting, San Diego, CA, May 1999.

59. **Puckett, J.A.** and Goodrich, B.L., "Introduction to the Capabilities of BRASS LRFD," Software For AASHTO LRFD Bridge Specifications, International Bridge Conference, Pittsburgh, PA, June 1998.

60. **Puckett, J.A.**, "Overview of NCHRP 12-50, Development of a Process for Software Testing", International Highway Engineering Exchange Program, Annual Meeting, Colorado Springs, CO, Sept. 1998.

61. **Puckett, J.A.**, "Overview of AASHTO's New Load Rating and Design Systems,", International Highway Engineering Exchange Program, Annual Meeting, Colorado Springs, CO, Sept. 1998.

62. Goodrich, B.L. and **Puckett, J.A.**, "AASHTO Funded Enhancements to BRASS,"BRASS User's Group Meeting, Kansas City, MO, July 1998.

63. **Puckett, J.A.**, "Update on BRASS-Pier LRFD, BRASS User's Group Annual Meeting, Kansas City, KC, July 1998.

64. **Puckett, J.A.** and Goodrich, B.L., "Update on BRASS Culvert with Emphasis on the GUI," BRASS User's Group Annual Meeting, Kansas City, KC, July 1998.

65. Thompson, P.D., Duray, J.A., and **Puckett, J.A.**, "The Application Of Object Technology In AASHTO's New Load Rating And Design System," First Conference on Information Technologies in Decision Making in Civil Engineering, Montreal, Canada, Oct. 1998.

66. Goodrich, B.L. and **Puckett, J.A.**, "Overview of a Simplified Method for Permit Vehicles with Non-Standard Gage Widths," BRASS User's Group Annual Meeting, Kansas City, MO, July 1998.

67. **Puckett, J.A.**, "Demonstration of Lotus Notes for Collaborative Development," Parteners Small Seminar Series, Sponsored by UW College of Engineering, Center for Teaching Excellence, PeopleSoft, UW Partners Program, April, 1998.

68. **Puckett, J.A.** and Goodrich, B.L., "BRASS-Culvert Update," AASHTO Subcommittee on Bridges, Annual Meeting, Nashville, TN, May 1998.

69. **Puckett, J.A.** and Goodrich, B.L., "Live Load Distribution for Permit Vehicles with Non-Standard Axle Configurations Using AASHTO LRFD Distribution Factors," AASHTO Subcommittee on Bridges, Annual Meeting, Nashville, TN, May 1998.

70. **Puckett, J.A.** and Hamilton, T.R., "Traffic Signal Pole – Work in Progress," AASHTO Subcommittee on Bridges, Annual Meeting, Nashville, TN, May 1998.

71. **Puckett, J.A.** and Hamilton, T.R., "Damping of Traffic Signal Poles," AASHTO Subcommittee on Bridges, Annual Meeting, Nashville, TN, May 1998.

72. Goodrich, B.L., and **Puckett, J.A.**, LRFD Software Panel, Kansas DOT Bridge Engineering Seminar, Kansas State University, Manhattan, KS, Oct. 1997.

73. **Puckett, J.A.** and Duray, J., "Overview of AASHTO Virtis," BRASS User's Group Meeting, Albany, NY, July 1997.

74. **Puckett, J.A.**, "Future Directions of BRASS," BRASS User's Group Meeting, Albany, NY, July 1997.

75. Goodrich, B.L. and **Puckett, J.A.**, "BRASS LRFD Example Problems," BRASS User's Group Meeting, Albany, NY, July 1997.

76. **Puckett, J.A.**, and Goodrich, B.L., "Update on BRASS-LRFD", BRASS User's Group Meeting, Albany, NY, July 1997.

77. **Puckett, J.A.**, Bramel, B.K., Dolan, C.W., and Ksaibati, K., "Asphalt Plug Joints – Design Guidelines and Specification Development," Western Bridge Engineers' Seminar, Coeur d' Alene, ID, Oct. 1997.

78. **Puckett, J.A.** and Goodrich, B.L., BRASS-LRFD Capabilities and Future Linkages, Western Bridge Engineers' Seminar, Coeur d' Alene, ID, Oct. 1997.

79. **Puckett, J.A.**, LRFD Software Panel, Steel Bridge Forum, American Iron and Steel Institute, National Steel Bridge Alliance, Springfield, IL. (This was an invited presentation and I was ill during this time. I sent paper presentation and an LRFD example)), Oct. 1997.

80. **Puckett, J.A.**, and Goodrich, B.L., "Update on BRASS-LRFD", AASHTO Committee on Bridges, Technical Committee Meeting, T19, Jackson Hole, WY, June 1997.

81. Hamilton, T.R., and **Puckett, J.A.**, "Signal Pole Research", AASHTO Committee on Bridges, Technical Committee Meeting, T, Jackson Hole, WY, June 1997.

82. Schmidt, R.J. and **Puckett, J.A.**, "A Look Back at Research Needs in Wood Engineering," Research Need in Wood Engineering, NSF/ASCE, held at ASCE Structures Congress, Portland, OR, April, 1997.
83. Puckett, J.A., Thompson, P.D, Duray, J., and Campbell, J., "Functional Design Memo – Analysis Engine for AASHTO BridgeWare," presentation to the AASHTO BridgeWare Task Force, Nov. 1996.

84. **Puckett, J.A.** and Hamann, J., "A Model for Using Productivity Software in the Engineering Classroom: MAP VARS & DOC," Frontier In Education Conference, Salt Lake City, Oct. 1996.

85. Fogstad, C. T. Galloway, C. Dolan, and **J. Puckett**, "Initial Tests of Kevlar Prestressed Timber Beams,"
86. Proceedings, National Conference on Wood Transportation Structures, Madison, WS, Oct. 1996.

87. Thomas, R.A. and **Puckett, J.A.**, "Analysis, Design, Rating and Drafting of Wood Bridge Superstructures,"
88. Proceedings, National Conference on Wood Transportation Structures, Madison, WS, Oct. 1996.

89. **Puckett, J.A.**, "Overview of BRASS-Girder," BRASS and BARS Users Group, Boise, ID, July 1996.

90. **Puckett, J.A.**, "New Program for Design and Rating of Timber Bridges," BRASS and BARS Users Group, Boise, ID, July 1996.

91. **Puckett, J.A.**, Campbell, J.J., Thompson, P.D, Duray, J., "Overview of AASHTO Virtis/Opis," BRASS and BARS Users Group, Boise, ID, July 1996.

92. **Puckett, J.A.**, "Virtis Database -- Technical Overview," International Highway Engineering Exchange Program, Annual Conference, Kansas City, MO, Sept. 1996. (accepted)

93. **Puckett, J.A.**, "Overview of AASHTO Virtis," Technical Advisory Group for Data Structures, AASHTO Virtis Project, Chicago, IL, June 1996.

94. Joint paper Research in Progress, NSF, Buffalo, NY, June 1996.

95. **Puckett, J.A.** and Dolan, C.W., "Fiber Reinforced Timber Beams," AASHTO Subcommittee on Bridges Annual Meeting, (Timber Committee) Philadelphia, PA, May 1996.

96. **Puckett, J.A.** and Randy Thomas, "Madero -- A New Program for Wood Bridge Analysis, Design, and Rating," AASHTO Subcommittee on Bridges Annual Meeting, (Software Committee) Philadelphia, PA, May 1996.

97. **Puckett, J.A.** and Randy Thomas, "Madero -- A New Program for Wood Bridge Analysis, Design, and Rating," AASHTO Subcommittee on Bridges Annual Meeting, (Timber Committee)Philadelphia, PA, May 1996.

98. **Puckett, J.A.**, "Update on BRASS-LRFD," AASHTO Subcommittee on Bridges Annual Meeting, Philadelphia, PA, May 1996.

99. **Puckett, J.A.**, Dolan, C.W., and Bramel, B., "Asphalt Plug Joint Research," AASHTO Subcommittee on Bridges Annual Meeting, Philadelphia, PA, May 1996.

100. **Puckett, J.A.**, "A Model for the Use of Productivity Software (MAP VARS & DOC)", ASEE Regional Conference, Laramie, WY, 1996.

101. **Puckett, J.A.**, "AASHTO BDS Critical Review -- Technical Review," AASHTO BDS Task Force, Kansas City, MO, Dec. 1995.

102. **Puckett, J.A.**, "AASHTO Virtis -- An Overview," Westerner Bridge Engineers Seminar, Sacramento, CA, Oct. 1995.

103. **Puckett, J.A.**, "Reengineering Legacy Software," International Highway Engineering Exchange Program, Portland, OR, Sept. 1995.

104. **Puckett, J.A.**, "Demonstration of AASHTO Virtis Prototype", AASHTO BDS User's Group, Williamsburg, VA, Sept. 1995.

105. **Puckett, J.A.**, "Demonstration of AASHTO Virtis Prototype," AASHTO BARS User's Group, Williamsburg, VA, Aug. 1995.

106. **Puckett, J.A.**, "AASHTO Virtis -- Overview for Maintenance Engineers," AASHTO Annual Meeting for Subcommittee on Maintenance, Branson, MO, July 1995.

107. **Puckett, J.A.**, "Update on BRASS-LRFD", BRASS User's Group, Denver, CO, July 1995.

108. Glandt, D.A., and **Puckett, J.A.**, "Update on BRASS Family of Programs," International Highway Engineering Exchange Program, Regional meeting, Cheyenne, WY, July 1995.

109. **Puckett, J.A.**, "Reengineering Legacy Software," International Highway Engineering Exchange Program, Regional meeting, Cheyenne, WY, July 1995.

110. **Puckett, J.A.**, "Update on BRASS-LRFD", AASHTO Annual Meeting of the Bridge Subcommittee, Portland, OR, May 1995.

111. **Puckett, J.A.**, "AASHTO Virtis -- An Overview", AASHTO Annual Meeting of the Bridge Subcommittee, Portland, OR, May 1995.

112. **Puckett, J.A.**, Thomas, R. and Ritter, M., "Software for the Design of Timber Bridges," AASHTO Annual Meeting of the Bridge Subcommittee, Portland, OR, May 1995.

113. Merchant, R., C.W. Dolan, and **Puckett, J.A.**, "Evaluation of Elastomeric Bridge Joint Sealants", ACI Conference, San Francisco, March 1994.

114. **Puckett, J.A.**, "Current Research in the Use of Hypermedia for Structural Engineering," Special Presentation to Nevada DOT, Oct. 1993.

115. **Puckett, J.A.**, "Current Research in the Use of Hypermedia for Structural Engineering," Special Presentation to Hawaii DOT, Jan. 1993.

116. **Puckett, J.A.**, "Current Research in the Use of Hypermedia for Structural Engineering," Special Presentation to Arizona DOT, Oct. 1993.

117. **Puckett, J.A.**, "Current Research in the Use of Hypermedia for Structural Engineering", Special Presentation to Oklahoma DOT, Oct. 1993.

118. **Puckett, J.A.**, "Current Research in the Use of Hypermedia for Structural Engineering", Special Presentation to Connecticut DOT, July 1993.

119. **Puckett, J.A.**, "Specialized Courseware in Structural Engineering", Session Organizer and Moderator, ASCE Structures Congress, Atlanta, GA, April 1994.

120. **Puckett, J.A.**, "Issues in Structural Engineering Education", Session Organizer and Moderator, ASCE Structures Congress, Atlanta, GA, April 1994.

121. **Puckett, J.A.**, "Linking Hypermedia with AASHTO Applications," AASHTO Joint Development Meeting, Tucson, AZ, May. 1994.

122. **Puckett, J.A.**, "Use of Hypermedia for the AASHTO Bridge Specification," Highway Engineering Exchange Program, San Antonio, TX, Sept. 1993.

123. **Puckett, J.A.**, "Metrification and Implementation of LRFD in BRASS," AASHTO Subcommittee on Bridges, Denver CO, May 1993.

124. **Puckett, J.A.** and Finch, T.R., "Transverse Load Distribution Factors for Permit Vehicles," Third Workshop on Bridge Engineering Research in Progress, San Diego, CA, Nov. 1992.

125. Smith, S.S., Allen, M.B., **Puckett, J.A.**, and Edgar. T.V., "Three Dimensional Model of Multi-Well Field Using Finite Layer Methods", Proceedings Hydrology Day Colorado State University, Ft. Collins, CO, April 1991.

126. Gutkowski, R. M., Chen, C. J. and **Puckett, J. A.**, "Developments in the Use of Cubic B- Splines in the Compound Strip Methods," Proceedings, Mechanics Computing in the 1990's and Beyond, Columbus, OH, May 1991.

127. **Puckett, J.A.**, Clancy, C., and Pope, D., "Method for Linking Computer Aided Design and Drafting," Proceedings, NSF Workshop on Bridge Engineering Research in Progress, Reno, NV, October 1990.

128. **Puckett, J.A.**, "An Automated Link for Computer Aided Drafting," Highway Exchange Program International Conference, Rapid City, SD, Sept. 1990

129. **Puckett, J.A.**, Clancy, C., and Pope, D., "An Effective Method for Linking Computer Aided Engineering Procedures with Computer Drafting," Proceedings, Third Bridge Engineering Conference, Denver, CO, May 1991.

130. **Puckett, J.A.**, Lieber, S.R., and Glandt, D.A, "An Automated Procedure for the Regulation of Overweight Vehicles," Proceedings, International Conference on Short and Medium Span Bridges, Toronto, Canada, August 1990.

131. **Puckett, J.A.**, "Relationship Between Structural Analysis and Design Curricula - A Case Study," Proceedings, ASCE Structures Congress, Baltimore, MD, April 1990.

132. Wilson, E.M., and **Puckett, J.A.**, "Technology Transfer in the 21st Century," National Forum on Education and Continuing Professional Development for the Civil Engineer, Proceedings, Las Vegas, NV, April 1990.

133. **Puckett, J.A.**, "A Comparison of the Design of Bridge Decks by the AASHTO Design Code and the Ontario Bridge Design Code," Western Bridge Engineers Seminar, Coeur d'Alene, ID, October 1989.

134. **Puckett, J.A.**, "A Comparison of the Design of Bridge Decks by the AASHTO Design Code and the Ontario Bridge Design Code," AASHTO Bridge Committee, San Antonio, TX, May 1989.

135. **Puckett, J.A.**, and Collins, B. P., "Service Level Reinforcement Stresses -- Two Full Scale Bridge Deck Tests," *Proceedings of Internal Bridge Conference*, Pittsburgh, PA, June 1989.

136. **Puckett, J.A.**, "Comparison of the Ontario and AASHTO Deck Designs," *Proceedings, Bridge Research in Progress, NSF*, Iowa State University, Des Moines, IA, Sept., 1988.

137. Edgar, T.V., **Puckett, J.A.**, and D'Spain, R.B., "Lateral Load Reduction on Bridge Abutment Walls," *Proceedings, Bridge Research in Progress, NSF,* Iowa State University, Des Moines, IA, Sept. 1988.

138. **Puckett, J.A.**, "An Automated Procedure for the Regulation of Overweight Vehicles," *Proceedings, Bridge Research in Progress, NSF,* Iowa State University, Des Moines, IA, Sept. 1988.

139. **Puckett, J.A.**, and Guenther, P.W., "Model for the Integration of Design and Drafting Software," *Proceedings, Fifth Annual International Bridge Conference*, Pittsburgh, PA, June 1988.

140. Edgar, T.V., D'Spain, R.B., and **Puckett, J.A.**, "Lateral Load Reduction Using Geotextiles," Earth Modification Using Geosynthetics, Wyoming Association of Consulting Engineers and Surveyors, Cody, WY, May 1988.

141. **Puckett, J.A.**, and Schmidt, R.J., "The 'PS' Finite Element Method in a Parallel Computing Environment," *Proceedings, ASCE Engineering Mechanics Division Specialty Conference*, Blacksburg, VA, May 1988.

142. **Puckett, J.A.**, and Schmidt, R.J., "The Finite Strip Method in a Parallel Computing Environment," *Proceedings, ASCE National Conference*, Nashville, TN, May 1988.

143. Ewing, E.E., Espendal, M.S., **Puckett, J.A.**, and Schmidt, R.J., "Simulation Technique for Multiphase and Multicomponent Flows," *Proceedings, Specialty Workshop on Topics in Computational Mechanics*, Dallas, TX, April 1987.

144. **Puckett, J.A.**, and Schmidt, R.J., "Semi-Analytical Shape Function in a Parallel Computing Environment," *Proceedings, Third SIAM Conference on Parallel Processing for Computing*, Los Angeles, CA, Dec. 1987.

145. **Puckett, J.A.**, and Schmidt, R.J., "The P-S Shape Function in a Parallel Computing Environment," *Proceedings, Third SIAM Conference on Parallel Processing for Computing*, Los Angeles, CA, Dec. 1987.

146. **Puckett, J.A.**, and Collins, B.P., "Data Acquisition of Reinforcement Strains in Bridge Decks," *Proceedings, National Conference on Microcomputers in Civil Engineering*, Orlando, FL, Nov. 1987.

147. **Puckett, J.A.**, and Edgar, T.V., "Behavior of Geotextile Approach Fills," *Proceedings Sixth ASCE-EMD Specialty Conference*, Buffalo, NY, May 1987.

148. **Puckett, J.A.**, and Slattery, J.E., "The Finite Strip Method in Groundwater Hydrology," *Proceedings Sixth ASCE-EMD Specialty Conference*, Buffalo, NY, May 1987.

149. **Puckett, J.A.**, Wiseman, D.L., and Chong, K.P., "Recent Developments in the Finite Strip Methods," ASCE National Conference, *Proceedings of the Structures Congress*, Orlando, FL, August 1987.

150. Kladianos, J.R., Chong, K.P., and **Puckett, J.A.**, "Stability Analysis of Axially Loaded Members by Finite Strip Method," *Proceedings Sixth ASCE-EMD Specialty Conference*, Buffalo, NY, May 1987.

151. **Puckett, J.A.**, Wiseman, D.L., and Chong, K.P., "Compound Strip Method for the Buckling Analysis of Continuous Plates," *Proceedings Sixth ASCE-EMD Specialty Conference*, Buffalo, NY, May 1987.

152. **Puckett, J.A.**, Edgar, T.V., and Reasch, L.R., "A General Menu-Driven Input System," *Proceedings Third Conference on Microcomputers in Civil Engineering*, Orlando, FL, Nov. 1985.

153. **Puckett, J.A.**, and Basham, K.D., "Transfer Matrix Method for the Analysis of Bridge Structures," *Proceedings Third Conference on Microcomputers in Civil Engineering*, Orlando, FL, Nov. 1985.

154. **Puckett, J.A.**, and Wilson, C.H., "Microcomputer Version of Bridge Rating and Analysis of Structural Systems," *Proceedings International Bridge Conference*, Pittsburgh, PA, June 1985.

155. **Puckett, J.A.**, and Edgar, T.V., "Making the 'Black Box' a Light Shade of Gray," *Proceedings, ASEE National Conference*, Atlanta, GA, 1985.

156. **Puckett, J.A.**, Reasch, L.R., and Edgar, T.V., "An Interactive Shell for Batch Processing," *Proceedings Ninth Conference on Electronic Computation, ASCE*, Birmingham, AL, Feb. 1985.

157. **Puckett, J.A.**, "Microcomputer Version of Bridge Rating and Analysis of Structural Systems (BRASS-PC)," National Research Council, NCHRP Project, 20-5 Mtg., Topic 16- 04, Nov. 1984.

158. **Puckett, J.A.**, and Gutkowski, R.M., "Compound Strip Method for the Analysis of Continuous Elastic Plates," *Proceedings Fifth ASCE-EMD Specialty Conference*, Laramie, WY, Aug. 1984.

159. **Puckett, J.A.**, and Gutkowski, R.M., "Application of the Compound Strip Method for the Analysis of Multispan Slab-Girder Bridges," *Proceedings International Association for Bridge and Structural Engineering*, Vancouver, B.C., Sept. 1984.

160. **Puckett, J.A.**, "Bridge Rating and Analysis of Structural Systems - Recent Enhancement of BRASS," *Proceedings International Bridge Conference*, Pittsburgh, PA, June 1984.

161. **Puckett, J.A.**, and Edgar, T.V., "Design of Educational Software," *Proceedings Second National Conference on Microcomputers in Civil Engineering*, Orlando, FL, 1984.

162. **Puckett, J.A.**, "Compound Strip Method for the Analysis of Continuous Elastic Plates," Doctoral Thesis, Colorado State University, 1983.

163. **Puckett, J.A.**, "Flexural Testing of Wood Transmission Poles," Structural Research Report No. 19, Colorado State University, 1983.

164. **Puckett, J.A.**, "Flexural Testing of Wood Transmission Poles," Master's Thesis, Colorado State University, 1980.

165. **Puckett, J.A.**, "Testing of Large Timber Poles," presented at the Annual Meeting of the Society of Experimental Stress Analysis, San Francisco, 1979.

166. **Puckett, J.A.**, Government Handbook, "Facilities Available to Missouri Industry for Hazardous Waste Disposal," State of Missouri, 1977.

**Invited Presentations**:

**Puckett, J.A.**, AASHTO Opis Short Course, AASHTO Virtis/Opis/BRASS Users Group Meeting, Orange Beach, AL, August 2003.

Goodrich, B.L., **Puckett, J.A.**, and Jablin, M.C, *LFD and LRFR Methods for Bridges*, AASHTO Virtis/Opis/BRASS Users Group Meeting, Orange Beach, AL, August 2003.

Puckett, J.A. and Peavy, M.D., *Update on Opis' Finite Element Engine*, AASHTO Virtis/Opis/BRASS Users Group Meeting, Orange Beach, AL, August 2003.

Goodrich, B.L., **Puckett, J.A.**, and Jablin, M.C, Comparisons of LFD and LRFR methods for Bridges, AASHTO Subcommittee on Bridges and Structures, T-18, Albuquerque, NM, June 2003.

Goodrich, B.L., **Puckett, J.A.**, and Jablin, M.C, *Comparisons of LFD and LRFR Methods for Bridges*, AASHTO Subcommittee on Bridges and Structures, T-18, Albuquerque, NM, June 2003.

Goodrich, B.L., **Puckett, J.A.**, and Jablin, M.C, *Implementation of AASHTO LRFD 6.10 Revisions – Commentary Regarding Adoption*, AASHTO Subcommittee on Bridges and Structures, Main Session, Albuquerque, NM, June 2003.

Goodrich, B.L., **Puckett, J.A.**, and Jablin, M.C, *Implementation of AASHTO LRFD 6.10 Revisions*, AASHTO Subcommittee on Bridges and Structures, T-14, Albuquerque, NM, June 2003.

**Puckett, J.A.** and Mlynarski, Bridge Software Validation Update, NCHRP 12-50, AASHTO Subcommittee on Bridges and Structures, T-19, Albuquerque, NM, June 2003.

Goodrich, B.L. and **Puckett, J.A.**, "Comparison of LFR and LRFR Bridges," Invited presentation to the University of Illinois Bridge Engineering Workshop, April 2003.

**Puckett, J.A. and Mlynarski, M.** "Bridge Software Validation Guidelines – Summary and Findings of NCHRP 12-50," AASHTO Subcommittee on Bridges, Annual Meeting, New Jersey, May 2002.
**Puckett, J.A.**, "Load Testing Requirement Outlined in the AASHTO LRFR Specification", Bridge Load Testing and Rating Workshop, Kansas City, Mo. March, 2001.

**Puckett, J.A.**, "New Technologies in Civil Engineering", Wyoming Engineering Society, Casper, WY, February 2001.

**Puckett, J.A.**, "Development of a Process for Software Testing," Bridge Design Workshop No. 6, Kansas State University, Manhattan, KS, October 1999.

**Puckett, J.A.**, "Modified Compression Field Theory with Examples," Bridge Design Workshop No. 6, Kansas State University, Manhattan, KS, October 1999.

**Puckett, J.A.**, "Overview of NCHRP 12-50, Development of a Process for Software Testing", International Highway Engineering Exchange Program, Annual Meeting, Colorado Springs, CO, Sept. 1998.

**Puckett, J.A.**, "Overview of AASHTO's New Load Rating and Design Systems", International Highway Engineering Exchange Program, Annual Meeting, Colorado Springs, CO, Sept. 1998.

**Puckett, J.A.** and Goodrich, B.L., "Overview of Modification for BRASS-Culvert," AASHTO Subcommittee on Bridges, Annual Meeting, Nashville, TN, May 1998.

**Puckett, J.A.** and Goodrich, B.L., "Live Load Distribution for Permit Vehicles with Non-Standard Axle Configurations Using AASHTO LRFD Distribution Factors," AASHTO Subcommittee on Bridges, Annual Meeting, Nashville, TN, May 1998.

**Puckett, J.A.** and Hamilton, T.R., "Traffic Signal Pole – Work in Progress," AASHTO Subcommittee on Bridges, Annual Meeting, Nashville, TN, May 1998.

**Puckett, J.A.** and Hamilton, T.R., "Damping of Traffic Signal Poles," AASHTO Subcommittee on Bridges, Annual Meeting, Nashville, TN, May 1998.

**Puckett, J.A.**, Bramel, Brian, and Dolan, C.W., "Asphalt Plug Joint Summary," AASHTO Subcommittee on Bridges, Annual Meeting, Nashville, TN, May 1998.

Goodrich, B.L., and **Puckett, J.A.**, LRFD Software Panel, Kansas DOT Bridge Engineering Seminar, Kansas State University, Manhattan, KS, Oct. 1997.

**Puckett, J.A.** and Duray, J., "Overview of AASHTO Virtis," BRASS User's Group Meeting, Albany, NY, July 1997.

**Puckett, J.A.**, "Future Directions of BRASS," BRASS User's Group Meeting, Albany, NY, July 1997.

Goodrich, B.L. and **Puckett, J.A.**, "BRASS LRFD Example Problems," BRASS User's Group Meeting, Albany, NY, July 1997.

**Puckett, J.A.**, and Goodrich, B.L., "Update on BRASS-LRFD", BRASS User's Group Meeting, Albany, NY, July 1997.

**Puckett, J.A.**, LRFD Software Panel, Steel Bridge Forum, American Iron and Steel Instititue, National Steel Bridge Alliance, Springfield, IL. (this was an invited presention and I was ill during this time. I sent paper presentation and an LRFD example)), Oct. 1997.

**Puckett, J.A.**, and Goodrich, B.L., "Update on BRASS-LRFD", AASHTO Committee on Bridges, Technical Committee Meeting, T19, Jackson Hole, WY, June 1997.

Hamilton, T.R., and **Puckett, J.A.**, "Signal Pole Research", AASHTO Committee on Bridges, Technical Committee Meeting, T, Jackson Hole, WY, June 1997.

**Puckett, J.A.** and Dolan, C.W., "Fiber Reinforced Timber Beams," AASHTO Subcommittee on Bridges Annual Meeting, (Timber Committee) Philadelphia, PA, May 1996.

**Puckett, J.A.** and Randy Thomas, "Madero -- A New Program for Wood Bridge Analysis, Design, and Rating," AASHTO Subcommittee on Bridges Annual Meeting, (Software Committee) Philadelphia, PA, May 1996.

**Puckett, J.A.** and Randy Thomas, "Madero -- A New Program for Wood Bridge Analysis, Design, and Rating,", AASHTO Subcommittee on Bridges Annual Meeting, (Timber Committee)Philadelphia, PA, May 1996.

Puckett, J.A., "Update on BRASS-LRFD," AASHTO Subcommittee on Bridges Annual Meeting, Philadelphia, PA, May 1996.

**Puckett, J.A.**, Dolan, C.W., and Bramel, B., "Asphaltic Plug Joint Research," AASHTO Subcommittee on Bridges Annual Meeting, Philadelphia, PA, May 1996.

**Puckett, J.A.**, "AASHTO BDS Critical Review -- Technical Review", AASHTO BDS Task Force, Kansas City, MO, Dec. 1995.

Puckett, J.A., "AASHTO Virtis -- An Overview", Westerner Bridge Engineers Seminar, Sacramento, CA, Oct. 1995.

**Puckett, J.A.**, "Demonstration of AASHTO Virtis Prototype", AASHTO BDS User's Group, Williamsburg , VA, Sept. 1995.

**Puckett, J.A.**, "Demonstration of AASHTO Virtis Prototype", AASHTO BARS User's Group, Williamsburg , VA, Aug. 1995.

**Puckett, J.A.**, "AASHTO VIRTIS", AASHTO Subcommittee on Maintenance, Branson, MO, July 1995.

**Puckett, J.A.**, "Reengineering Legacy Software", Engineering Highway Exchange Program, Cheyenne, WY, June 1995.

**Puckett, J.A.**, "Update on BRASS LRFD-SI", AASHTO Subcommittee on Bridges Portland, OR, May 1995.

**Puckett, J.A.**, "AASHTO VIRTIS", AASHTO Subcommittee on Bridges Portland, OR, May 1995.

**Puckett, J.A.**, "Analysis, Design, and Rating of Wood Bridges", AASHTO Subcommittee on Bridges Portland, OR, May 1995.

**Puckett, J.A.**, "Applications of Visual Bridge," AASHTO BDS Task Force Committee, Burlington, VT, Oct. 1994.

**Puckett, J.A.**, "Reengineering Software", Colorado Department of Transportation Highway Engineering Exchange Program, Denver, CO, Oct. 1995.

**Puckett, J.A.**, "Reengineering Legacy Software", International Highway Engineering Exchange Program, New Orleans, LA, Oct. 1995.

**Puckett, J.A.**, "Linking Hypermedia with AASHTO Applications," AASHTO Joint Development Committee Meeting, Tucson, AZ, Jan. 1994.

**Puckett, J.A.**, "Use of Hypermedia for the AASHTO Bridge Specification," Highway Engineering Exchange Program, San Antonio, TX, Sept. 1993.

**Puckett, J.A.**, "Metrification and Implementation of LRFD in BRASS," AASHTO Subcommittee on Bridges, Denver CO, May 1993.

**Puckett, J.A.**, "Enhancement of Engineering Software," Mountain Plains Consortium Annual Conference, Salt Lake City, UT, Nov. 1990.

**Puckett, J.A.**, "An Automated Link for Computer Aided Drafting," Highway Exchange Program International Conference, Rapid City, SD, Sept. 1990

**Puckett, J.A.**, "Development Environments for Standardized User Interfaces," AASHTO Bridge Design System Task Force, Sacramento, CA, Dec. 1989.

**Puckett, J.A.**, "Development Environments for Standardized User Interfaces," AASHTO Administration Subcommittee on Information Systems Annual Meeting, Rapid City, SD, May 1989.

**Puckett, J.A.**,"A Comparison of the Design of Bridge Decks by the AASHTO Design Code and the Ontario Bridge Design Code," Western Bridge Engineers Seminar, Coeur d'Alene, ID, Oct. 1989.

**Puckett, J.A.**,"A Comparison of the Design of Bridge Decks by the AASHTO Design Code and the Ontario Bridge Design Code," AASHTO Bridge Committee, San Antonio, TX, May 1989.

**Puckett, J.A.**,"A Proposed Modification to the AASHTO Bridge Deck Design Procedures," AASHTO Subcommittee on Loads and Load Distribution, San Antonio, TX, May 1989.

**Puckett, J.A.**, "Lightly Reinforced Bridge Deck Design Procedures and the AASHTO Specification," Western Bridge Engineer Seminar, Coeur d'Alene, ID, Oct. 1989.

**Puckett, J.A.**, "Model for the Integration of Design and Drafting Software," Highway Engineering Exchange Program, Western Regional Conference, Jackson, WY, July 1988.

**Puckett, J.A.**, "Rating of Timber Bridges," Workshop on Timber Bridges, FHWA, Colorado State University, Ft. Collins, CO, Aug. 1987.

**Puckett, J.A.**, "Microcomputer Version of BRASS," Northwest Bridge Engineers Seminar, Portland, OR, Oct. 1985.

**Research Work in Progress or Completed**:

"Use of Fiber Reinforced Composites in Wood Bridges," Forests Products Laboratory, USDA, with Dolan.

"Elastomeric Bridge Joints", funded by the Wyoming Department of Transportation (1995 - present) with Dolan

"Development of Software for the Design of Timber Bridges", funded by the USDA Forests Products Laboratory (1994 - present).

"Investigation of Bridge Joint Behavior and Design Recommendations," funded by the Wyoming Department of Transportation (1993 - present)

"Temperature Effects on Skewed and Slab Girder Bridges," funded by the Wyoming Department of Transportation (1993 - present)

"Testing and Monitoring a Fabric Reinforced Earth Structure," Wyoming State Highway Department, with T. V. Edgar, Summer 1992, contract extension.

"Bridge Management in a Rural Environment," - funded by the U.S.D.O.T. (1990 - 1992)

"Enhancement of Transportation Engineering Software," - funded by the Wyoming Highway Department (1989 - 1992)

"Enhancement of Transportation Engineering Software," - funded by the U.S.D.O.T. (1989 - 1992)

"Adaptive Finite Element Analysis Using Orthogonal Shape Functions (Semi-Analytical Elements)" - funded by the National Science Foundation (1986 - 1991)

"Strength of Wooden Stud Walls Subjected to Uplift due to Wind" - unfunded (1985 - 1988)

"Structural Analysis and Rating of Bridges with the IBM Personal Computer" - funded by the Wyoming Highway Department (1984 - 1989)

"Testing and Monitoring a Prototype Slab-Girder Bridge" - funded by the Wyoming State Highway Department (1986 - present)

"Testing and Monitoring a Fabric Reinforced Earth Structure" - funded by the Wyoming State Highway Department (1986 - 1989)

"Structural Engineering Software Package for the Prime System (SBEAM, TRUSS< EQS, MOHR, FEASEAM)," Intended for use by Civil Engineering students at all levels - unfunded (1985 - 1986)

"Compound Strip Method for Vibration Analysis of Continuous Plates" - unfunded (1981 - 1986)

"Compound Strip Method for Stability Analysis of Continuous Plates" - unfunded (1981 - 1986)

"Substructuring with Transfer Matrices" - funded by the Wyoming Highway Department (1984 - 1985)

"Finite Strip Method for Groundwater Analysis" - funded by Department of Civil Engineering, Colorado State University (1986 - 1987)

"Compound Strip Method for the Analysis of Continuous Folded Plates" - unfunded (1983 - 1986)

**Funded Grants**:

1. *Incorporation of research findings into AASHTO's Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals, (with Michael G. Barker),* National Academy of Sciences, National Cooperative Highway Research Program NCHRP Project 20-07/Task 209, $50K.

2. *Demonstration and Performance Assessment Of A Net Zero Energy School Building In Wyoming,* Wyoming Energy Commission, Wyoming Business Council, April 2005, $179,211.

3. *Fatigue of Traffic Signal Poles – Phase II,* (with Robert Erikson), WYDOT, $142K. + ~$50K specimen donations.

4. *Review of Information Technology in Bridge Management,* International Technology Scanning Program, USDOT, FHWA , Office of International Programs, $15,000.

5. "Madero – Phase III", USDA Forest Products Laboratory, June 2000, $46147.36 (verbally approved, Feb 2002, budget to be revised).

6. "Increase in Damping of Traffic Signal Structures" (with Trey Hamilton), WYDOT (Continuation, $43,400, MOU Sept 1999.

7. "University of Minnesota Fatigue-Resistant Design of Cantilevered Signal, Sign, and Light Supports" (with Trey Hamilton), $20,000, June 1998.

8. "NDSU TEL-8 Educational Delivery Enhancement + Demonstration," North Dakota State University, 1997, $29,997, (with E.M. Wilson)

9. "NDSU TEL-8 Educational Delivery Enhancement + Demonstration," North Dakota State University, 1997, $17,726, (with E.M. Wilson)

10. "Analysis, Design, Rating, and Drafting of Wood Bridge Superstructures – Phase II)", Forests Products Laboratory, United States Department of Agriculture, Madison, WI, $44,959, June 1997. (overhead not included).

11. "Evaluation of Signal Structures," Wyoming Department of Transportation, $156,000 (with H.R. Hamilton), Sept. 1997.

12. "Increasing Damping of Signal Structures," Wyoming Department of Transportation, $56,000 (with H.R. Hamilton), Jan. 1997.

13. "Major Equipment Grant," UW Research Office, $25,000 (with C.W. Dolan, H.R. Hamilton, R.J. Schmidt), 1997.

14. "Investigation of Elastomeric Bridge Joints," Wyoming Department of Transportation, approximately $40,000. (with C.W. Dolan)

15. "Use of Fiber Reinforced Composites in Wood Bridges," Forests Products Laboratory, United States Department of Agriculture, Madison, WI, $40,000 (no overhead included). (with C.W. Dolan)

16. "Analysis, Design, Rating, and Drafting of Wood Bridge Superstructures, Forests Products Laboratory, United States Department of Agriculture, Madison, WI, $68,448 (overhead not included).

17. "Investigation of Bridge Joint Behavior and Design Recommendations", Wyoming Department of Transportation, $74242. (With C.W. Dolan)

18. "Temperature Effects on Skewed and Slab Girder Bridges," Wyoming Department of Transportation, $68,784.

19. "Testing and Monitoring a Fabric Reinforced Earth Structure," Wyoming State Highway Department, with T. V. Edgar, Summer 1992, contract extension,

20. "Management of Bridge Inventories in a Rural Environment," Jan. 1992, Wyoming Department of Transportation, $22,000.

21. "Management of Bridge Inventories in a Rural Environment," Jan. 1991, U.S.D.O.T., $35,200.

22. "Management of Bridge Inventories in a Rural Environment," Jan. 1991, Wyoming Highway Department, $35,200.

23. College of Engineering Faculty Development Grant, April 1990, $1,100.

24. Contract Extension, "Enhancement of Transportation Engineering Software," Wyoming Highway Department, Dec. 1989, $49,300.

25. Contract Extension, "Enhancement of Transportation Engineering Software," U.S.D.O.T., Dec. 1989, $37,400.

26. "Workshop on Computer Aided Design," National Science Foundation, June 1989, $10,000.

27. "Evaluation of Bridge Deck Utilizing Ontario Bridge Deck Design Methods - Technology Transfer of Research Results," May 1989, $3,800.

28. "Enhancement of Transportation Engineering Software," Wyoming Highway Department, Dec. 1989, $37,500.

29. "Enhancement of Transportation Engineering Software," U.S.D.O.T., Dec. 1988, $47,400.

30. "An Automated Procedure for the Regulation of Overweight Vehicles on Wyoming's Highways," Wyoming Highway Department, Jan. 1987, $48,000.

31. "Acquisition of Major Equipment for Parallel Computing," with Ewing, R. E., Allen, M. B., and Schmidt, R. J., Summer 1986, $100,000.

32. "Mainframe and Workstation Software Maintenance, Enhancement and Interaction," Wyoming Highway Department - approximately $50,000.

33. "Application of Emerging Computer Architecture in Computational Mathematics and Mechanics," National Science Foundation, with Allen, M. B., Isaacson, E. L., and Schmidt, R. J., July 1986, $763,000.

34. "College of Engineering Faculty Development Grant," April 1986, $1,500.

35. "Bridge Rating and Analysis of Structural Systems," research funded by the Federal Highway Administration through the Wyoming State Highway Department, Aug. 1983, $36,000.

36. "Structural Analysis and Rating of Bridges with the IBM Personal Computer," funded by the Wyoming State Highway Department, October 1984, $60,000.

37. Contract Extension, "Structural Analysis and Rating of Bridges with the IBM Personal Computer," funded by the Wyoming State Highway Department, Oct. 1984, $20,000.

38. "Testing and Monitoring a Prototype Slab-Girder Bridge," Wyoming State Highway Department, Spring 1985, $58,000.

39. "Testing and Monitoring a Fabric Reinforced Earth Structure," Wyoming State Highway Department, with T. V. Edgar, Spring 1985, $47,000.

**Pending Grants**

*None*

**Continuing Education -- Instructor**:

1. LRFD Bridge Design Short Course, PCA, Albuquerque, New Mexico, October 2005. (with Shri Bride)

2. *Advanced Topics in AASHTO Opis – Short Course*, National Short Course in Conjunction with the Annual Users' Group Meeting, Orange Beach, AL, August 2003.

3. *Advanced Topics in AASHTO Opis – Short Course*, National Short Course in Conjunction with the Annual Users' Group Meeting, Lincoln, NB, August 2002.

4. "Advanced Topic in AASHTO Opis and Virtis", National Short Course in Conjunction with the Annual Users' Group Meeting, Albuquerque, NM, August 2001.

5. "Introduction to AASHTOWare Opis/Virtis -- A Two-day Short Course", Colorado Consultants, Denver CO, July 2001.

6. "One-Day Short Course on AASHTO Opis", National Steel Bridge Alliance, National Graduate Student Intensive Course, State University of New York, Buffalo NY, June 2001.

7. "Introduction to AASHTOWare Opis/Virtis -- A Two-day Short Course", Oklahoma DOT, Oklahoma City OK, March 2001.

8. "Introduction to AASHTOWare Opis/Virtis -- A Two-day Short Course", Massachusetts DOT, Boston MA, January 2001.

9. "Introduction to AASHTOWare Opis/Virtis -- A Two-day Short Course", Massachusetts DOT, Boston MA, August 2000.

10. "Introduction to AASHTOWare Opis/Virtis – PCA Professors' Seminar on Bridge Engineering", Portland Cement Association, Skokie, IL, August 2000.

11. "Introduction to AASHTOWare Opis/Virtis -- A Two-day Short Course", Colorado DOT, Denver CO, August 2000.

12. "Advanced AASHTOWare Opis/Virtis -- One-day Short Course with Emphasis on Concrete Bridges", National Course, Minneapolis, MN, July 2000.

13. "Review of BRASS-Girder (LRFD) with Respect to the LRFD Specifications", Kansas DOT, May 2000 (with Brian Goodrich).

14. "Modified Compression Field Theory with Examples", Bridge Design Workshop No. 6, Kansas State University, Manhattan, KS, October 1999.

15. "Introduction to AASHTOWare Virtis -- A Two-day Short Course", Minneapolis, MN, April 1999.

16. "Introduction to AASHTOWare Opis -- A Two-day Short Course", Sacramento, CA, April 1999.

17. "Unified Concrete Bridge Design," California Department of Transportation, Jan. 1999.

18. "Bridge Engineering – An LRFD Approach," Taught to 55 students via a satellite network to NDDOT, WYDOT, MTDOT, CSU, NDSU, USU, and UW. This was a full semester course. Spring 1997.

19. "Bridge Rating and Analysis of Structural Systems (BRASS) Workshop" AASHTO User's Group, Denver, CO, July 1995.

20. "Bridge Rating and Analysis of Structural Systems (BRASS)," Cheyenne, WY, June 1993 (FHWA Sponsored)

21. "Bridge Rating and Analysis of Structural Systems (BRASS)," Hartford, CN, June 1993 (FHWA Sponsored)

22. "Bridge Rating and Analysis of Structural Systems (BRASS)," Oklahoma City, OK, June 1993 (FHWA Sponsored)

23. "Bridge Rating and Analysis of Structural Systems (BRASS)," Phoenix, AZ, June 1993 (FHWA Sponsored)

24. "Bridge Rating and Analysis of Structural Systems (BRASS)," Honolulu, HW, Jan 1993 (FHWA Sponsored)

25. "Bridge Rating and Analysis of Structural Systems (BRASS)," Carson City, NV, April 1994 (FHWA Sponsored)

26. "Bridge Rating and Analysis of Structural Systems (BRASS)," Albany, NY, May 1994 (FHWA Sponsored)

27. "Bridge Rating and Analysis of Structural Systems (BRASS)," Baltimore, MD, May 1994 (FHWA Sponsored)

28. "Bridge Rating and Analysis of Structural Systems (BRASS)," Little Rock, AK, Sept. 1994 (FHWA Sponsored)

**Continuing Education -- Student**:

FHWA/NCBC/NSBA LRFD Bridge Design Seminar, June 2-5, 2005.

AISC Steel Connection Short Course, Las Vegas, Feb. 2000.

National Highway Institute, LRFD Foundation Design, Cheyenne, WY, June 1999.

Railway Bridges: Inspecting, Rating and Upgrading, George Washington University, 1986.

Highway Bridges: Inspecting, Rating and Upgrading, George Washington University, 1986.

"Starting a High Technology Business," Phoenix, AZ, 1986.

ASEE Workshop on Physiological Type Testing and Application in Engineering Education, Cincinnati, OH, 1986.

"Engineering Computation on the IBM PC," University of Colorado at Boulder, CO, 1985.

"PATRAN Utilization," University of Wyoming, 1984.

"Simplified Concrete Design," Portland Cement Association, 1984.

Participation in two ASEE Effective Teaching Institutes.

"Concrete High-rise Building Design Seminar," Portland Cement Association, 1983.

"Design of Steel Joints and Diaphragms," American Institute of Steel Construction, 1983.

"Workshop on Structural Wood Research," National Science Foundation, 1983.

**Courses Taught**:

*Graduate Classes:*
Bridge Engineering (traditional course)
Bridge Engineering (taught on satellite network to 55 students in University and DOTs)
Advanced Structural Analysis
Structural Dynamics
Advanced Concrete Design

*Undergraduate Classes:*
Concrete Design (senior)
Structural Analysis II (senior)
Structural Analysis I (junior)
Mechanics of Materials (sophomore/junior)
Dynamics (sophomore)
Statics (sophomore)
Engineering Computations - Introductory Freshman Course
Structural Design for Construction Engineers (Senior)

**Other Professional Work**: Numerous projects and software have been developed by BridgeTech, Inc. under Dr. Puckett's direction and leadership.

**Professional Reports:** Numerous.